

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

DATE: June 2, 1987

Region II
Response and Prevention Branch
Edison, New Jersey 08837

(201) 548-8730 - Commercial and FTS
24 Hour Emergency

TO: Data Base Manager
C. Daggett, EPA
S. Luftig, EPA
F. Rubel, EPA
B. Sprague, EPA
J. Marshall, EPA
ERD, Washington, D.C.
548-B
N. Nosenchuck, NYSDEC

POLREP NO. One (1) and Final
INCIDENT/SITE NO.: Eastman Kodak Spill/751-87
POLLUTANT: Sodium Hydroxide
CLASSIFICATION: Potential Medium
SOURCE: Eastman Kodak Company
LOCATION: Rochester, New York
AMOUNT: 9,200 Gallons
WATER BODY: Groundwater

1. SITUATION:

A. At 1625 hours on May 27, 1987, EPA received notification of a sodium hydroxide spill from the National Response Center (NRC). The spill allegedly occurred sometime between May 22 and May 25, 1987. The discovery was not made until Tuesday May 26, 1987.

B. EPA responded to document the cause of the spill and to discover the reason as to why the Federal Government was not contacted until Wednesday May 27, 1987.

CAUSE COST(S): I, (Lack of Equipment Maintenance)
O, (Pump Failure)

ACTION TAKEN:

A. EPA and the Technical Assistance Team (TAT) and the New York State Department of Environmental Conservation (NYSDEC) responded to the scene at 1300 hours on May 28, 1987, where they were informed that a maximum of 9,200 gallons of 50% sodium hydroxide solution had leaked from a 12,000 gallon storage tank.

B. The discharge was a result of a failure of the mechanical seal on the sodium hydroxide transfer pump during a dead-headed pumping condition, causing the solution to be pumped through the seal.



C. The spill from the pump flowed into a drainage system which leads to the in-house waste treatment plant. The treatment facility is normally capable of handling sodium hydroxide. However, a release into the environment occurred due to the questionable integrity of the sewer lines leading to the waste treatment plant. An estimated 4,500 gallons of sodium hydroxide actually flowed into the treatment facility while the remaining 4,700 gallons was released to the environment.

D. The release was discovered on Tuesday morning, May 27, when it was noticed that sodium hydroxide had leaked into the basement of a building adjacent to the drainage system. Eastman Kodak reported the spill to the National Response Center, immediately upon confirmation of the release.

3. MEASURES WHICH COULD AVOID RELEASES OF A SIMILAR NATURE:

B. The spill was caused by a faulty valve and a weak pump seal. The release to the environment was due to the poor structural integrity of the sewer system. In the future, proper maintenance, periodic inspection and replacement of equipment, and restoration of the drainage system is suggested in order to avoid a recurrence.

4. FUTURE PLANS AND RECOMMENDATIONS:

A. Eastman Kodak will install a flow detection system which will automatically shut the pumps down in the event of a valve failure. They will also replace the faulty valve and ruptured pump seal.

B. The RP will excavate the drain area to inspect/repair the pipe system and to assess the extent of the soil contamination and remove any existing pools or pockets of sodium hydroxide solution and contaminated soil.

C. The NYSDEC will monitor the excavation, restoration of pipes and the decontamination.

D. Eastman Kodak will file a report with the EPA regarding the cause of the incident and describing all remedial activities.

FURTHER
POLREPS
FINAL POLREP X FORTHCOMING _____ SUBMITTED BY: Margaret Chong
(TAT) Margaret Chong, OSC
Response and Prevention
Branch

DATE RELEASED: 8/24/87

U.S. ENVIRONMENTAL PROTECTION AGENCY

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POLREP NO. One (1) and Final
INCIDENT/SITE NO.: Eastman Kodak Spill/751-87
POLLUTANT: Sodium Hydroxide
CLASSIFICATION: Potential Medium
SOURCE: Eastman Kodak Company
LOCATION: Rochester, New York
AMOUNT: 9,200 Gallons
WATER BODY: Groundwater

1. SITUATION:

A. At 1625 hours on May 27, 1987, the U.S. EPA received notification of a sodium hydroxide spill from the National Response Center (NRC). The spill allegedly occurred sometime between May 22 and May 25, 1987. The discovery was not made until Tuesday May 26, 1987.

B. EPA responded to document the cause of the spill and to discover the reason as to why the NRC was not contacted until Wednesday May 27, 1987.

CAUSE COSE(S): I, (Lack of Equipment Maintenance)
O, (Pump failure)

ACTION TAKEN:

A. Representatives from the U.S. EPA and the Technical Assistance Team (TAT) and the New York State Department of Environmental Conservation (NYSDEC) responded to the scene at 1300 hours on May 28, 1987, where they were informed that a maximum of 9,200 gallons of 50% sodium hydroxide solution had leaked from a 12,000 gallon storage tank.

B. The 12,000 gallon tank, located on the ground level was connected to a 1,000 gallon tank located on the sixth floor. The 1,000 gallon was equipped with sensors whereas whenever the liquid level reaches the lower level, sodium hydroxide is pumped from the 12,000 gallon tank. However, the seal on the pump failed, and the pump kept pumping the liquid since the liquid level on the 1,000 gallon tank never reached the high level, at which point the pump would stop.

C. The spill from the pump flowed into a drainage system which leads to the company's waste treatment facility. The treatment facility is normally capable of handling sodium hydroxide. However, a release into the environment occurred due to the poor structural integrity of the sewer lines leading to the facility. An estimated 4,500 gallons of sodium hydroxide actually flowed into the treatment facility while an approximate 4,700 gallons was released to the environment.

D. The release was discovered on Tuesday morning, May 27, when it was noticed that sodium hydroxide had leaked into the basement of a building adjacent to the drainage system.

3. MEASURES WHICH COULD AVOID RELEASES OF A SIMILAR NATURE:

B. The spill was caused by a faulty valve and a weak pump seal. The release to the environment was due to the poor structural integrity of the sewer system. In the future, proper maintenance, periodic inspection and replacement of equipment, and restoration of the drainage system is suggested in order to avoid a recurrence.

4. FUTURE PLANS AND RECOMMENDATIONS:

A. Eastman Kodak will install a flow detection system which will automatically shut the pumps down in the event of a valve failure. They will also replace the faulty valve and ruptured pump seal.

D. Eastman Kodak will file a report with the EPA regarding the cause of the incident and describing all remedial activities.

DATE RELEASED: _____

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TAT

POLREP NO. One (1)
INCIDENT/SITE NO.: Eastman Kodak Spill/751-87
POLLUTANT: Sodium Hydroxide
CLASSIFICATION: Potential Major
SOURCE: Eastman Kodak Company
LOCATION: Rochester, New York
AMOUNT: 9,200 Gallons
WATER BODY: Groundwater

1. SITUATION:

A. At 1625 hours on May 27, 1987, the U.S. EPA received notification of a sodium hydroxide spill from Kevin Churchill of the Eastman Kodak Co., in Rochester, New York. The spill allegedly occurred sometime between Friday night, May 22, and Tuesday, May 26, 1987. The discovery was not made until Wednesday, May 27, 1987.

B. Representatives from the U.S. EPA the Technical Assistance Team (TAT) and the New York State Department of Environmental Conservation (NYSDEC) responded to the scene at 1300 hours on May 28, 1987, where they were informed that a maximum of 9,200 gallons of 50% sodium hydroxide solution had leaked from a ruptured pump seal. The pump seal failed when the pump was automatically activated by a tank level indicator and an automatic valve failed to open. Pressure increased in the lines behind the valve, causing abnormal stresses to be placed on the pump seal, resulting in the rupture.

C. The spill from the pump flowed into a drainage system which leads to the company's waste treatment facility. The treatment facility is normally capable of handling sodium hydroxide. However, a release into the environment occurred due to the poor structural integrity of the underground pipes leading to the facility. An estimated 4,500 gallons of sodium hydroxide actually flowed into the treatment facility while an approximate 4,700 gallons was released to the environment.

D. The release was discovered on Wednesday morning, May 27, when it was noticed that sodium hydroxide had leaked into the basement of a building adjacent to the drainage system.

CAUSE COSE(S): I, (Lack of Equipment Maintenance)
L, (Pipe or pipeline failure)

2. ACTION TAKEN:

A. The responsible party (RP) immediately notified the National Response Center (NRC) when it was determined that a release to the environment had occurred.

B. The areas surrounding the pump, the drains and the adjacent basement were decontaminated by the RP Facility Response Team.

3. MEASURES WHICH COULD AVOID RELEASES OF A SIMILAR NATURE:

A. The RP has designed a flow detection system which will automatically shut the pump down if a valve should fail, preventing future spills of a similar nature. The RP is also working on a method of repairing the underground drainage system to prevent future leaks and releases to the environment.

B. The spill was caused by a faulty valve and a weak pump seal. The release to the environment was due to the poor structural integrity of the drainage system. In the future, proper maintenance, periodic inspection and replacement of equipment, and restoration of the drainage system is suggested in order to avoid a recurrence.

4. FUTURE PLANS AND RECOMMENDATIONS:

A. Eastman Kodak will install a flow detection system which will automatically shut the pumps down in the event of a valve failure. They will also replace the faulty valve and ruptured pump seal.

B. The RP will excavate the drain area to inspect/repair the pipe system and to assess the extent of the soil contamination and remove any existing pools or pockets of sodium hydroxide solution and contaminated soil.

C. The NYSDEC will monitor the excavation, restoration of pipes and the decontamination.

D. Eastman Kodak will file a report with the EPA regarding the cause of the incident and describing all remedial activities.

FURTHER
POLREPS
FINAL POLREP _____ FORTHCOMING X SUBMITTED BY: _____
(TAT) Margaret Chong, OSC
Response and Prevention
Branch

DATE RELEASED: _____